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IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Patent Application

Inventors(s):	George Earl Peterson	**Case:**	18
Serial No.:	09/915,963	**Filing Date:**	July 26, 2001
Examiner:	Shih Chao Chen	**Group Art Unit:**	2821
Title:	Broadband Polling Structure		

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, DC 20231

SIR:

Enclosed is an **Appeal Brief** (in triplicate) in the above-identified application.

The appeal brief fee of **$320**, as required by 37 CFR §1.17(c), may be charged to my **MASTERCARD** (form 2038 attached).

In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit my MASTERCARD as required to correct the error.

Respectfully,

Michael J. Urbano

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Attorney for Applicant(s)
Reg. No. 24, 522
610-691-7710

Date: 03/14/03

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Michael J. Urbano: Michael J. Urbano

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

#11 pkrea 3/25/03

Patent Application

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THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, DC 20231

SIR:

APPEAL BRIEF UNDER 37 CFR § 1.192

I. Real Party In Interest

The real party in interest is Lucent Technologies Inc., 600 Mountain Avenue, PO Box 636, Murray Hill, NJ, 07974-0636.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of the Claims

Claims Extant: Claims 1-25 are now in this case.

Claims Rejected: Claims 1-19 and 21-25 stand finally rejected. More specifically, Claims 1-9 and 11-18 have been rejected under 35 USC §102(e) as being anticipated by Wicks *et al.*, US Statutory Invention Registration No. H2016H (hereinafter *Wicks*), and Claims 10, 19 and 21-25 have been rejected under 35 USC §103(a) as being unpatentable over Wicks.

Claims Allowable: Claim 20 has been objected to as being dependent upon rejected base Claim 11, but would be allowable if rewritten in dependent form including all of the limitations of the base Claim and any intervening Claims.

Claims on Appeal: Claims 1-19 and 21-25 are on appeal.

IV. Status of Amendments

An amendment, which was filed on December 5, 2002 after the final rejection, was *not* entered.

V. Summary of the Invention

Applicant's antenna structure [100, FIG. 2(a); 200 FIGs. 4(a) and 4(b)] operates over a wide frequency spectrum and offers wider directivity than endfire-type devices (10, FIG. 1), which makes the invention better suited to polling applications (page 7, lines 1-5; page 9, lines 24 *et seq.*). Applicant recognized that the narrow directivity of tapered slot antennas is attributable to the phase velocity supported by the antenna's dielectric substrate (page 2, lines 18-20).

In accordance with one embodiment of the present invention, Applicant's antenna structure supports a phase velocity greater than the speed of light (page 2, lines 21-22; page 7, lines 9-10; FIG. 2; page).

In another embodiment of the present invention, Applicant's antenna structure comprises a tapered antenna element [110, FIGs. 2(a) and 2(b); FIG. 3; 210 and 215, FIGs. 4(a) and 4(b)] coupled with a symmetrically shaped ground plane [page 2, lines 23-24; 125, FIGs. 2(a) and 2(b); 225, FIG. 4(a)], which supports the relatively wider directivity of the broadband structure (page 7, lines 22-23; page 10, lines 6-7).

Advantageously, the symmetrical ground plane is disk-like shaped, although other symmetrical shapes may also be employed (page 7, lines 23-25; page 10, lines 7-11). The disk-shaped ground planes 125 and 225 of FIGs. 2(a) and 4(a) each exhibits symmetry around the vertical axis, which runs axially through conductors 115 and 234, respectively. Equivalently, these disk-shaped ground planes can be seen to have symmetry with respect to any plane that is perpendicular to the disk and includes its center.

The tapered antenna element is positioned at an angle from the ground plane, which may advantageously be 90 degrees (page 2, lines 24-26; page). The taper affords Applicant's antenna structure with wide frequency bandwidth (page 7, lines 15-16; page 10, lines 16-18. The taper may have a variety of shapes (FIG. 3; page 9, lines 1-20).

VI. Issues Presented for Review

Issue A: Whether Claims 1-9 and 11-18 are patentable over Wicks under 35 USC §102(e).

Issue B: Whether Claims 10, 19 and 21-25 are patentable over Wicks under 35 USC §103(a).

VII. Grouping of Claims

As to the 35 USC §102(e) rejection, Claims 1-9 and 11-18 are in a first group.

As to the 35 USC §103(a) rejection, Claims 10, 19 and 21-25 are in a second group.

In each group the Claims do *not* stand or fall together. As indicated in Section VIII, Argument, *infra*, the Claims of each group are believed to be separately patentable.

VIII. Argument

Issue A: In paragraphs 4-5 of the first Office action dated April 18, 2002 only Claims 1, 3-9, 11, 13-18 were rejected under 35 USC 102(e) as being anticipated by Wicks, whereas in paragraph 2 of the final Office action dated September 26, 2002 Claims 1-9 and 11-18 were rejected under 35 USC 102(e) as being anticipated by Wicks.

This rejection is respectfully traversed.

Regarding Claim 1, the Examiner's position is as follows in both Office actions:

> Wicks et al. teaches in figures 1-5 an antenna structure comprising: at least one antenna element [mono-blade antenna element], that at least one antenna element having at least one taper (See Figure 4); and a symmetrical ground plane [ground plane] coupled with the at least one antenna element [mono-blade antenna

element].

Lack of Symmetrical Ground Plane

A careful reading of Wicks makes it clear that he fails to teach a *symmetrical* ground plane., as required by Claim 1, lines 6-7. More specifically, in Figures 1 and 2a of Wicks the one-dimensional ground plane is shown schematically as a horizontal line, which is a typical depiction of an *infinite* ground plane. On the other hand, in Figure 4 of Wicks the ground plane is depicted in three-dimensions as an irregular plate, with the cut-away view again suggesting an *infinite* ground plane. Wicks provides no teaching regarding the shape of the ground planes of Figures 1, 2a and 4, and likewise provides no indication whatsoever that the ground planes are symmetrical. Lastly, in Figure 5 of Wicks the ground plane is depicted in three-dimensions as a rectangular plate. There are several reasons why this plate is not symmetrical as called for by Claim 1, lines 6-7. First, the schematic rendering of the plate of Figure 5 measures approximately 4" x 2.75", a ratio of 16:11, which is clearly rectangular and not symmetrical. Second, even if we assume, *arguendo*, that the specific dimensions of the figure were not intended to be the actual dimensions (nor the ratio of such dimensions) of an operating embodiment, we are still left with the fact that Wicks is totally silent on the requirement of symmetry. Third, and perhaps most importantly, note that Wicks addresses the problems of *aircraft* communications antennas. It is well known in the art that in such aviation environments *the ground plane is the body of the aircraft*, which means that the schematic renderings of the ground plane in Figures 1, 2a, 4 and 5 provide no indication of symmetry. Rather, Wicks as a whole tells one skilled in the art that the ground plane is the aircraft body, and that body is not symmetrical as called for by Claim 1 and as defined by Applicant's specification.

In paragraph 7 (Response to Arguments) of the final Office action, the Examiner addresses the issue of symmetry in the following fashion:

> Applicant argues that the Wicks (sic) fails to teach or reasonably suggest a symmetrical ground plane. More specifically, in figures 1, 2a and 4, which is a

> typical depiction of an infinite ground plane. This argument is not deemed to be persuasive because the ground plane extends to infinity, this makes the ground plane symmetrical since extending to infinity is a form of translational symmetry.

The Examiner's Response to Arguments is *inaccurate* because the notion of an infinite ground plane is a mathematical fiction. Therefore, the notion of symmetry existing at infinity due to some form of "translational symmetry" is also a mathematical fiction. No real symmetrical structures are taught by such a mathematical fiction. Therefore, Wicks does not teach one skilled in the art to build an antenna structure that has a symmetrical ground plane, as required by Claim 1.

Finally, in his Advisory Action dated December 16, 2002, the Examiner treats the issue of symmetry once again:

> Regarding symmetrical ground plane: Wicks et al. teaches in figure 5 (cutoff ground plane in figure 4) the ground plane is rectangular and all antenna elements are "worked against ground", a physical symmetrical relationship between antenna elements and ground plane. Figure 5 shows a rectangular ground plane (See col. 2, lines 50-55, i.e. a metal ground plane) that provides a symmetrical relationship.

This reasoning does not support the Section 102 rejection. First, the ground plane of Figure 5 is rectangular and *not* symmetrical for the reasons discussed above. Second, even if we assume, *arguendo*, that the notion that all the antenna elements are "worked against ground" establishes some "physical symmetrical relationship *between* antenna elements and ground plane" (italics added), it does not teach that the ground plane *itself* must be symmetrical.

Accordingly, it is respectfully submitted that Claim 1 is not anticipated by Wicks.

Independent Claim 11, line 6 also requires a symmetrical ground plane, and for the reasons set forth above is not anticipated by Wicks.

Linear Constant Profile

Regarding dependent Claim 3, the Examiner argues that Wicks teaches in figures

1-5 the antenna structure wherein the taper comprises a *linear constant profile.* Apparently the Examiner is referring to the straight-line segment D, E, F, G of the mono-blade, which Wicks unambiguously states *is relatively unimportant and is made a straight line for manufacturing ease.* Thus, clearly Wicks does not teach to one skilled in the art that the straight-line segment has any significant functional role in the operation of the antenna. In addition, a linear-constant profile as called for in Claim 3, and as illustrated in FIG. 3(a), requires *both a constant (horizontal) segment and a linear (sloped) segment.* Clearly, Wicks is totally devoid of any teaching of such a profile.

Dependent Claim 13 also includes a linear constant profile, and for the reasons set forth above is not anticipated by Wicks.

Cigar-like and Butterfly-like Beam Pattern

Regarding dependent Claim 4, the Examiner argues that Wicks teaches in figures 1-5 an antenna structure that supports a *cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three-dimensional pattern.* The Examiner's assertion is totally without support. Wicks provides no mention of such beam patterns, and therefore cannot anticipate Claim 4.

Dependent Claim 14 also calls for an antenna structure that supports a cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three-dimensional pattern, and for the reasons set forth above is not anticipated by Wicks.

Phase Velocity Greater than the Speed of Light

Wicks fails to teach that the antenna structure is a *traveling wave antenna supporting a phase velocity greater than the speed of light.* In fact, Wicks teaches away from this feature of the invention; to wit, at column 2, lines 66-67 Wicks specifically teaches that the *slot transmission line has a TEM mode of propagation.* As noted in Applicant's July 11, 2002 traversal of the Section 112 rejection in the first Office action, a TEM wave (or mode) is a *slow wave*, which means that its phase velocity is *less than* the speed of light, *not greater than* the speed of light as required by Claims 2 and 12.

Issue B: In paragraph 7 of the first Office action and paragraph 4 of the final Office action, Claims 10, 19 and 21-25 were rejected under 35 USC 103(a) as being unpatentable over Wicks. The Examiner's position is stated as follows:

> Wicks et al. teaches every feature of the Claimed invention except for the symmetrical ground plane is disk shaped.
>
> It would have been an obvious matter of design choice to have the symmetrical ground plane is (*sic*) disk shaped, since such a modification would have involved a mere change in the shape of the symmetrical ground plane. A change in shape is generally recognized as being within the level of ordinary skill in the art.

This rejection is respectfully traversed for several reasons. First, Wicks does not teach or reasonably suggest the use of a symmetrical ground plane, as explained in Applicant's Section 102 arguments set under Issue A, *supra*, and incorporated herein by reference. Second, Wicks is totally devoid of any reasonable suggestion of a disk-shaped ground plane, as required by Claim 10, Claim 19, and Claim 21, lines 14-16. Third, it is Applicant's unique contribution to the art of polling antennas that symmetry is important and that disk shaped antenna is particularly useful (e.g., in antennas that use a coax feed, to serve as a trap to eliminate radiation from the coaxial cable, which would otherwise distort the beam).

IX. Conclusion

In summary, it is respectfully submitted that Wicks neither anticipates nor renders obvious Claims 1-19 and 21-25. Accordingly, reversal of the final rejection is in order.

X. Appendix

The Claims under appeal are in Appendix A.

Respectfully,
George Earl Peterson

By_____
Michael J. Urbano
Attorney for Applicant
Reg. No. 24,522
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Date: _____

Att.
Appendix A

APPENDIX A

Claims on Appeal

1. An antenna structure comprising:

at least one antenna element, the at least one antenna element having at least one taper; and

a symmetrical ground plane coupled with the at least one antenna element.

2. The antenna structure of Claim 1, wherein the at least one antenna element comprises a travelling wave antenna supporting a phase velocity greater than the speed of light.

3. The antenna structure of Claim 1, wherein the taper comprises a linear profile, a linear constant profile, a broken-linear profile, an exponential profile, an exponential constant profile, a tangential profile, a step-constant profile, or a parabolic profile.

4. The antenna structure of Claim 1, wherein the antenna structure supports a cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three-dimensional beam pattern.

5. The antenna structure of Claim 1, wherein the at least one antenna element is positioned at an angle from the symmetrical ground plane.

6. The antenna structure of Claim 5, wherein the angle is about 90 degree with respect to the x-, y- and z- axes.

7. The antenna structure of Claim 1, wherein the at least one antenna element is coupled with the symmetrical ground plane by means of an unbalanced impedance.

8. The antenna structure of Claim 7, wherein the unbalanced impedance comprises a coaxial cable.

9. The antenna structure of Claim 7, wherein a first conductor of the unbalanced impedance mechanically couples the at least one antenna element with the symmetrical ground plane.

10. The antenna structure of Claim 1, wherein the symmetrical ground plane is disk shaped.

11. An antenna structure comprising:

an array of at least two antenna elements, each antenna element having at least one taper;

a symmetrical ground plane; and

an unbalanced impedance for coupling the array of at least two antenna elements with the symmetrical ground plane.

12. The antenna structure of Claim **11**, wherein at least one antenna element of the array comprises a travelling wave antenna supporting a phase velocity greater than the speed of light.

13. The antenna structure of Claim **11**, wherein the taper of at least one antenna element of the array comprises a linear profile, a linear constant profile, a broken-linear profile, an exponential profile, an exponential constant profile, a tangential profile, a step-constant profile, or a parabolic profile.

14. The antenna structure of Claim **11**, wherein each antenna element of the array supports a cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three- dimensional beam pattern.

15. The antenna structure of Claim **11**, wherein each antenna element of the array is positioned at an angle from the symmetrical ground plane.

16. The antenna structure of Claim **15**, wherein the angle for each antenna element is about 90 degree with respect to the **x-**, **y-** and **z-** axes.

17. The antenna structure of Claim **11**, wherein the unbalanced impedance comprises a coaxial cable.

18. The antenna structure of Claim **17**, wherein a first conductor of the unbalanced impedance mechanically couples each antenna element of the array with the symmetrical ground plane.

19. The antenna structure of Claim **11**, wherein the symmetrical ground plane is disk shaped.

21. An apparatus comprising:

a transceiver; and

an antenna structure for radiating or capturing electromagnetic energy from or to the transceiver comprising:

at least one antenna element having at least one taper, the taper comprising a linear profile, a linear constant profile, a broken-linear profile, an exponential profile, an exponential constant profile, a tangential profile, a step-constant profile, or a parabolic profile;

a symmetrical disk shaped ground plane, the at least one antenna element being positioned at an angle from the symmetrical disk shaped ground plane; and

an unbalanced impedance for coupling the at least one antenna element with the symmetrical disk shaped ground plane.

22. The apparatus of Claim **21**, wherein the at least one antenna element supports a cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three- dimensional beam pattern.

23. The antenna structure of Claim **21**, wherein the angle is about 90 degree with respect to the **x-**, **y-** and **z-** axes.

24. The antenna structure of Claim **21**, wherein the unbalanced impedance comprises a coaxial cable.

25. The antenna structure of Claim **21**, wherein a first conductor of the unbalanced impedance mechanically couples the at least one antenna element with the symmetrical ground plane.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 12

Application Number: 09/915,963
Filing Date: July 26, 2001
Appellant(s): PETERSON, GEORGE EARL

Michael J. Urbano
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 14, 2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-9, 11-18 and 10, 19, 21-25 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

H2016 H	Wicks et al.	4-2002

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

I. Claims 1-9 and 11-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Wicks et al. (US H2016 H).

Regarding claim 1, Wicks et al. teaches in figures 1-5 an antenna structure comprising: at least one antenna element [mono-blade antenna element], that at least one antenna element having at least one taper (See Figure 4); and a symmetrical ground plane [ground plane] coupled with the at least one antenna element [mono-blade antenna element].

Regarding claim 2, Wicks et al. teaches in figures 1-5 the antenna structure wherein the at least one antenna element [mono-blade antenna element] comprises a traveling wave antenna supporting a phase velocity greater than the speed of light.

Regarding claim 3, Wicks et al. teaches in figures 1-5 the antenna structure wherein the taper comprises a linear constant profile.

Regarding claim 4, Wicks et al. teaches in figures 1-5 the antenna structure wherein the antenna structure supports a cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three-dimensional beam pattern.

Regarding claim 5, Wicks et al. teaches in figures 1-5 the antenna structure wherein the at least one antenna element [mono-blade antenna element] is positioned at an angle from the symmetrical ground plane [ground plane].

Regarding claim 6, Wicks et al. teaches in figures 1-5 the antenna structure wherein the angle is about 90 degree with respect to the x-, y- and z-axes (See Figure 4).

Regarding claim 7, Wicks et al. teaches in figures 1-5 the antenna structure wherein the at least one antenna element [mono-blade antenna element] is coupled with the symmetrical ground plane [ground plane] by means of an unbalanced impedance [coaxial transmission line feed].

Regarding claim 8, Wicks et al. teaches in figures 1-5 the antenna structure wherein the unbalanced impedance [coaxial transmission line feed] comprises a coaxial cable.

Regarding claim 9, Wicks et al. teaches in figures 1-5 the antenna structure wherein a first conductor of the unbalanced impedance (See Figure 4) mechanically couples the at least one antenna element [mono-blade antenna element] with the symmetrical ground plane [ground plane].

Regarding claim 11, Wicks et al. teaches in figures 1-5 an antenna structure comprising: an array of at least two antenna elements (See Figure 5), each antenna element [mono-blade antenna element] having at least one taper; a symmetrical ground plane [ground plane]; and an unbalanced impedance [coaxial transmission line feed] for

coupling the array of at least two antenna elements with the symmetrical ground plane [ground plane] (See col. 4, lines 7-13).

Regarding claim 12, Wicks et al. teaches in figures 1-5 the antenna structure wherein the at least one antenna element of the array (See Figure 5) comprises a traveling wave antenna supporting a phase velocity greater than the speed of light.

Regarding claim 13, Wicks et al. teaches in figures 1-5 the antenna structure wherein the taper of at least one antenna element of the array comprises a linear constant profile.

Regarding claim 14, Wicks et al. teaches in figures 1-5 the antenna structure wherein each antenna element of the array supports a cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three-dimensional beam pattern.

Regarding claim 15, Wicks et al. teaches in figures 1-5 the antenna structure wherein each antenna element [mono-blade antenna element] of the array is positioned at an angle from the symmetrical ground plane [ground plane].

Regarding claim 16, Wicks et al. teaches in figures 1-5 the antenna structure wherein the angle for each antenna element is about 90 degree with respect to the x-, y- and z-axes (See Figure 4).

Regarding claim 17, Wicks et al. teaches in figures 1-5 the antenna structure wherein the unbalanced impedance [coaxial transmission line feed] comprises a coaxial cable.

Regarding claim 18, Wicks et al. teaches in figures 1-5 the antenna structure wherein a first conductor of the unbalanced impedance (See Figure 4) mechanically couples each antenna element of the array with the symmetrical ground plane [ground plane].

II. Claims 10, 19, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wicks et al. (Cited above).

Wicks et al. teaches every feature of the claimed invention except for the symmetrical ground plane is disk shaped.

It would have been an obvious matter of design choice to have the symmetrical ground plane is disk shaped, since such a modification would have involved a mere change in the shape of the symmetrical ground plane in order to maximize the surface area of the ground plane perpendicular to the transmission element, and provides a uniform transmission pattern. A change in shape is generally recognized as being within the level ordinary skill in the art (See MPEP 2144.04 IV B).

(11) Response to Argument

I. Rejection of claims 1-9 and 11-18 under 35 U.S.C. 102(e).

In responding to the rejection applied to claims 1-9 and 11-18 as being anticipated by Wicks et al., the following arguments are presented.

Appellant alleges that Wicks fails to teach a ***symmetrical*** ground plane, as required by claim 1, lines 6-7 and claim 11, line 6. More specifically, in Figures 1 and 2a of Wicks the one-dimensional ground plane is shown schematically as a horizontal line, which is a typical depiction of an ***infinite*** ground plane. On the other hand, in Figure 4 of

Wicks the ground plane is depicted in three-dimensions as an irregular plate, with the cut-away view again suggesting an ***infinite*** ground plane. This argument is not deemed to be persuasive because the ground plane extends to infinity, this makes the ground plane symmetrical since extending to infinity is a form of translational symmetry.

Appellant alleges that Wicks does not teach to one skilled in the art that the straight-line segment has any significant functional role in the operation of the antenna, as required by claims 3 and 13. Examiner respectfully disagrees. If the prior art structure is capable of performing the intended use, then it meets the claim.

Appellant alleges that Wicks provides no mention of such beam patterns, as required by claims 4 and 14. Examiner respectfully disagrees. Wicks teaches in figures 4 and 5 the antenna structure that supports a cigar-like directional three-dimensional beam pattern and a butterfly wing-like directional three dimensional pattern.

Appellant alleges that Wicks fails to teach that the antenna structure is a traveling wave antenna supporting a phase velocity greater than the speed of light, as required by claims 2 and 12. Examiner respectfully disagrees. Because claims 2 and 12 does not indicate the traveling wave antenna is "slow wave" or "fast wave". The determining factor as to whether a wave is slow or fast resides in the phase angle of the complex surface impedance.

II. Rejection of claims 10, 19 and 21-25 under 35 U.S.C. 103(a).

In responding to the rejection applied to claims 10, 19 and 21-25 as being unpatentable over Wicks et al., the following arguments are presented.

Appellant alleges that Wicks is totally devoid of any reasonable suggestion of a disk-shaped ground plane. Examiner agrees. However, a change in shape is generally recognized as being within the level ordinary skill in the art, for example, Ogot et al. (U.S. Patent No. 5,648,787) teaches in figure 3A a disk-shaped ground plane [210, 250] in order to maximize the surface area of the ground plane perpendicular to the transmission element, and provides a uniform transmission pattern (See col. 4, lines 66-67 and col. 5, lines 1-3).

For the above reason, it is believed that the rejection should be sustained.

Respectfully submitted,

Shih-Chao Chen
Examiner

Conferees:

Olik Chaudhuri

Don Wong

Shih-Chao Chen

May 02, 2003